

## CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	Michael Inman Test for Aggregate
<b>Proposed Implementation Date:</b>	November 2017-April 2018
<b>Proponent:</b>	Michael Inman
<b>Location:</b>	Section 32, Township 34N, Range 19E (Common Schools Trust)
<b>County:</b>	Blaine

### I. TYPE AND PURPOSE OF ACTION

The proponent is requesting a Permit to Test for Aggregate to dig up to 15 test holes to explore for gravel in the NE¼NE¼ on the tract of State Land listed above. The test holes are being dug to see if there is enough of a gravel resource for the applicant to pursue a large volume gravel permit with State of Montana Department of Natural Resources and Conservation (DNRC). Access for equipment to dig test holes would be from Ellome Road, through privately owned land which the proponent has been granted access. Please see attached maps for test hole locations and access route.

### II. PROJECT DEVELOPMENT

#### 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

*Provide a brief chronology of the scoping and ongoing involvement for this project.*

State of Montana DNRC Surface and Mineral Owner: Mineral Resource Specialist - Heidi Crum, Petroleum Engineer – Trevor Taylor, and DNRC Archeologist - Patrick Rennie.

DNRC Surface lessee: Bruce Hofeldt

Montana Sage Grouse Habitat Conservation Program

#### 2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Montana Sage Grouse Habitat Conservation Program

#### 3. ALTERNATIVES CONSIDERED:

No Action Alternative: The proposed Permit to Test for Aggregate would not be granted. The current grazing lease and non-motorized recreational use would continue.

Action Alternative: The Permit to Test for Aggregate would be granted to the proponent to dig test holes on trust land for the purpose of exploring the gravel resource. The current grazing lease and non-motorized recreational use would continue.

### III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES* potentially impacted are listed on the form, followed by common issues that would be considered.
- Explain *POTENTIAL IMPACTS AND MITIGATIONS* following each resource heading.
- Enter "NONE" if no impacts are identified or the resource is not present.

#### 4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

*Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.*

The proposed project area is located on an upland bench composed of Bearpaw Shale of the Upper Cretaceous Formation. There are no unusual geologic features in the proposed project area. The minimal slope of this location decreases erosion potential. The proponent would only operate in dry or frozen conditions. The proponent would be required to reclaim and reseed all test holes and any areas disturbed by equipment.

According to Web Soil Survey the soils at the location of the test holes would be dug are Phillips-Elloam complex on the upland bench and Hillon clay loam in the hilly areas below the bench. The Phillips-Elloam complex soils contain loam in the A & E horizons over clay and clay loams which can be up to 79 inches deep. These soils have a slight erosion hazard potential, high restoration potential and high potential to withstand heavy equipment traffic even in wet conditions. The Hillon clay loam soils contain clay loam throughout the soil profile. These soils have a severe erosion hazard potential, high restoration potential and fair potential to withstand heavy equipment traffic even in wet conditions.

The DNRC Permit to Test for Aggregate would require the proponent to stockpile the topsoil separate while digging the test holes. When the test holes are backfilled, the proponent would replace all topsoil and sod. All test holes and disturbed areas would be reseeded.

#### 5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

*Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.*

The proposed test holes are located on an upland bench, hills and finger ridges. The bench is approximately 30-60 feet higher in elevation than the nearest water well that is 0.5 mile away from the nearest test hole site. No groundwater resources are expected to be impacted.

Lodge Creek, a perennial stream, is located to the west of the proposed project. The DNRC Permit to Test for Aggregate would require a 100-foot setback from any water resources. Any test holes would be a minimum of 100 feet away from Lodge Creek.

No cumulative effects to water resources are anticipated.

The proponent would fuel off-site and use a mobile fuel truck. All fuel, oil and waste would be kept out of the test hole project area.



**6. AIR QUALITY:**

*What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.*

Vehicle and equipment traffic may generate some airborne dust. No cumulative effects to air quality are anticipated.

**7. VEGETATION COVER, QUANTITY AND QUALITY:**

*What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.*

Great Plains Mixedgrass Prairie plant communities in proposed project area will be impacted short term. Native species on site include: western wheatgrass, bluebunch wheatgrass, green needlegrass, needle and thread grass, prairie junegrass, threadleaf sedge, blue grama, little bluestem, prairie sandreed, winterfat, fringed sagewort, cudweed sagewort and silver sagebrush. Invasive species on site include crested wheatgrass and Kentucky bluegrass.

The proponent would be required to reclaim and reseed all test holes and any areas disturbed by equipment.

**8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:**

*Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.*

A variety of big game, small mammals, raptors, upland game birds and songbirds use this area and activities from the proposed project could short-term disrupt wildlife movement and patterns.

The area of this project is within hundreds of acres of similar, undeveloped habitat. Wildlife would have many alternative travel routes, cover and foraging sites.

**9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:**

*Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.*

This project is within Greater Sage Grouse general habitat and the applicant has applied to the Montana Sage Grouse Habitat Conservation Program. There are no confirmed documented leks within 2 miles of the project. Approval of this project would be contingent upon approval from the Montana Sage Grouse Habitat Conservation Program.

A search was conducted using the Natural Heritage Map View on Montana Natural Heritage Program retrieved on 11/21/17 from <http://mtnhp.org/MapView/>. This database can identify point observations of species of concern in the section of the proposed activity. No point observations are documented for Section 32.

However, a few sites were found in the surrounding sections. Point observations documented Sharp-tailed Grouse in the northeast quarter of T33N-R19E Section 5, a Sprague's Pipit in the northwest quarter of T33N-R19E Section 6, and a Swift Fox in the northeast quarter of T34N-R19E Section 33.



No long term or cumulative impacts to unique, endangered, fragile or limited environmental resources are anticipated from either of the proposed alternatives.

**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

*Identify and determine effects to historical, archaeological or paleontological resources.*

A Class III cultural and paleontological resources inventory was conducted of the area of potential effect (APE) on state land. One low-profile cairn was identified in the APE. This cairn should be marked with lathe prior to testing or gravel quarrying and a 100 foot buffer (area of complete avoidance) should be established around the cairn. This effort will result in *No Effect* to *Antiquities* as defined under the Montana State Antiquities Act. A formal report of findings is forthcoming and will be made available through the DNRC and the Montana State Historic Preservation Officer.

**11. AESTHETICS:**

*Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.*

The proposed test hole sites are approximately 5 miles north of Chinook, MT and 0.25 miles off Ellome Road. Aesthetics may be impacted short-term as the equipment would be visible from the traffic that utilizes Ellome Road, a county road. The test holes would be filled and reseeded after information is collected from the soil profile.

**12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:**

*Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.*

The proposed project would have an impact on the land, up to 15 test holes will be dug in NE¼ Section 32. The proponent would reclaim all test hole sites and any disturbance created by equipment.

The proposed project would not affect water quality or quantity and no water is required for the test holes. Air quality would be temporarily affected due to airborne dust particles resulting from mining activities and vehicles traveling to and from the test hole sites. The short-term use of this site will minimize degradation to air quality.

**13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:**

*List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

No other environmental documents were found that pertain to Section 32 in T34N-R19E.

**IV. IMPACTS ON THE HUMAN POPULATION**

- *RESOURCES* potentially impacted are listed on the form, followed by common issues that would be considered.
- Explain *POTENTIAL IMPACTS AND MITIGATIONS* following each resource heading.
- Enter "NONE" if no impacts are identified or the resource is not present.

**14. HUMAN HEALTH AND SAFETY:**

*Identify any health and safety risks posed by the project.*

No human and health safety risks were identified as a result of the proposed project other than the typical occupational hazards that coincide with gravel and mining operations. The proponent would be held liable for all risks to human health and safety.

**15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:**

*Identify how the project would add to or alter these activities.*

The proposed project is not expected to alter current or future industrial, commercial, and agricultural activities and production.

**16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:**

*Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.*

The proposed project would not create, move, or eliminate jobs.

**17. LOCAL AND STATE TAX BASE AND TAX REVENUES:**

*Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.*

Neither of the proposed alternatives will affect the local and state tax base or revenues.

**18. DEMAND FOR GOVERNMENT SERVICES:**

*Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.*

Neither of the proposed alternatives will affect demand for government services.

**19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:**

*List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

Neither of the proposed alternatives will affect locally adopted environmental plans or goals.

**20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:**

*Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.*

Neither of the proposed alternatives will affect access to and quality of recreational activities.

**21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:**

*Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.*

Neither of the proposed alternatives will affect density and distribution of population and housing.

**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

Neither of the proposed alternatives will affect social structures and mores.



**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

Neither of the proposed alternatives will affect cultural uniqueness and diversity of the Chinook area.

**24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:**

*Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.*

The existing grazing lease on this tract provides approximately \$3,448.00 in annual revenue from Section 32 that goes to Common Schools. The proponent has provided \$25 for a test gravel permit.

<b>EA Checklist Prepared By:</b>	<b>Name:</b> Heidi Crum	<b>Date:</b> 12/7/17
	<b>Title:</b> Mineral Resource Specialist	

**V. FINDING****25. ALTERNATIVE SELECTED:**

After reviewing the Environmental Assessment, I have selected the Action Alternative, to issue a Permit to Test for Aggregate. I believe this alternative can be implemented in a manner that is consistent with the long-term sustainable natural resource management of the area and generate revenue for the common school trust.

**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

I conclude all identified potential impacts will be mitigated by utilizing the stipulations listed below and no significant impacts will occur as a result of implementing the selected alternative.

**27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:**☐


EIS

☐

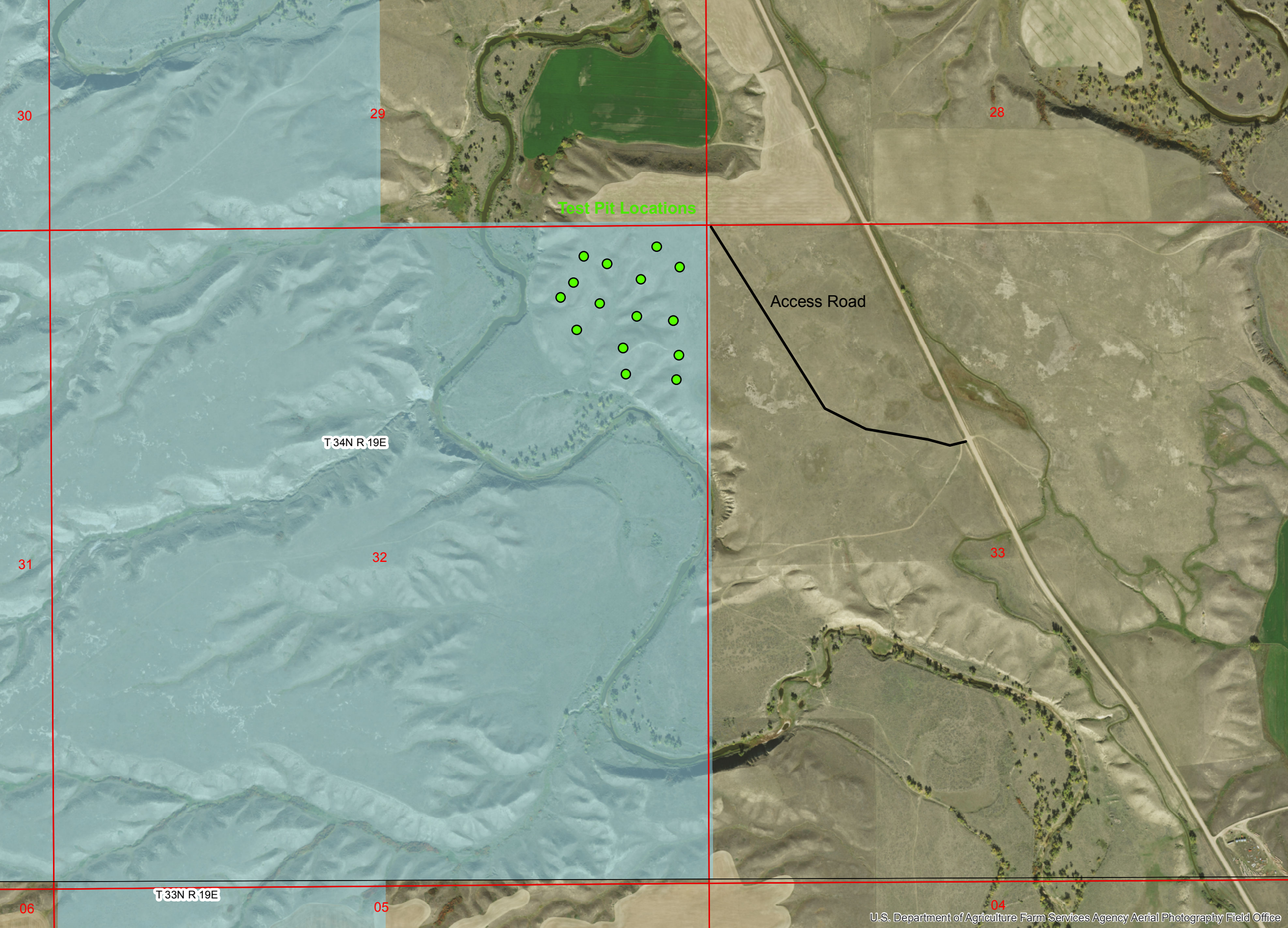
More Detailed EA

☒

No Further Analysis

<b>EA Checklist Approved By:</b>	<b>Name:</b> Trevor Taylor
	<b>Title:</b> Petroleum Engineer
<b>Signature:</b> 	<b>Date:</b> 12/13/17





30

29

28

Test Pit Locations

Access Road

T34N R.19E

31

32

33

06

T33N R.19E

05

04